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Engineer Update

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P2 will make PMBP work

By Bernard Tate
Headquarters

They call it the "CEFMS Test," after the Corps of Engineers Financial Management System that can be difficult to use at first.

"We will apply the lessons learned in CEFMS to the P2 system," said Lt. Gen. Robert Flowers, Chief of Engineers, during a recent Town Hall meeting. "The CEFMS Test is, do you use CEFMS because you *want to*, or because you *have to*? If P2 doesn't make it easier for project delivery team members and program managers to do their work, then we will improve it until it does. A lot of time and hard work has gone into developing P2, and when you see it, I believe you're going to *want to* use it."

P2 is a suite of automated tools that, in the initial phase of its deployment, will support Corps project execution in military programs, civil works, environmental, research and development, and international services. Eventually all work in USACE and all functional areas will be supported by P2.

Proven tools

"P2 is the tool," said Mary Nash, a program analyst in the Headquarters' Manpower and Force Analysis Division, and a member of the Business Process/P2 team. "ER 5-1-11 (U.S. Army Corps of Engineers Business Process) and the 'Project Management Business Process (PMBP) Manual' are the doctrine, and the tool to put that doctrine to work is P2."

P2 was developed like no other system that the Corps has fielded in recent years.

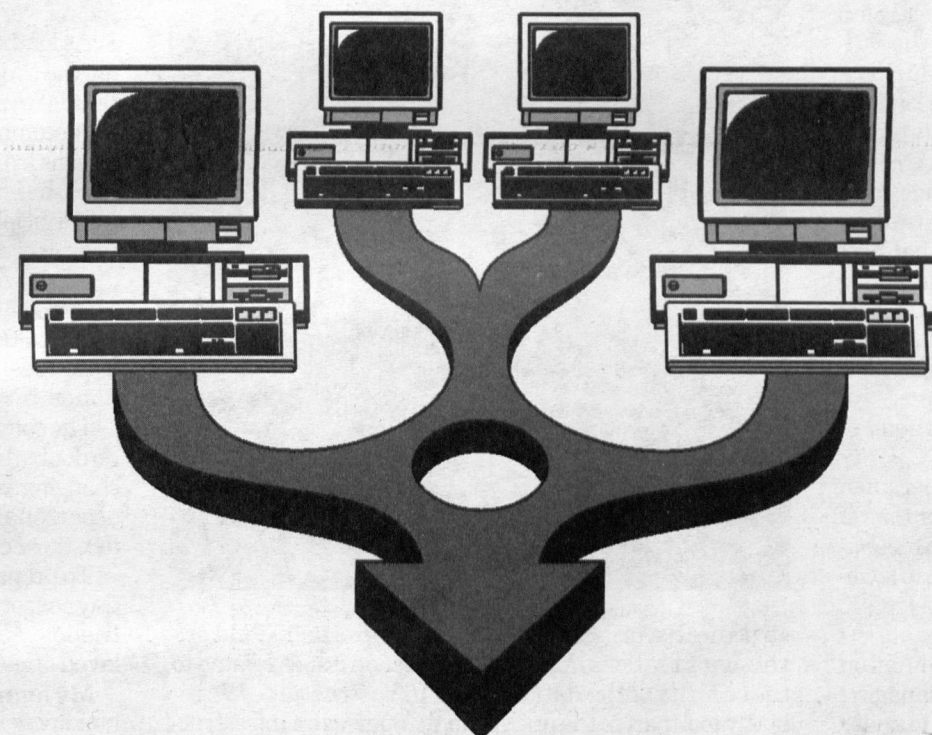
First, P2 is built from proven, commercially-available software configured to the Corps' needs, according to Dan Duncan, the Corps' Deputy for PMBP. The software comes from three vendors — Oracle and Primavera, plus OP3, a third-party software that allows Oracle and Primavera to talk to each other. The Business Process/P2 project is managed from the Engineering Support Center, Huntsville; Terry Patton is the project manager.

"Until recently, this type of technology was not available," said Nash. "This is all-new state-of-the-art technology, now available for the Corps to benefit from. It wasn't there in the past."

Best practices

The second big difference is that developing P2 was a process of identifying and assembling best business practices to facilitate project execution.

"The business processes in it are a collection of the best practices collected by a Corps-wide team," said Terri Moody, a computer scientist in the Business Man-



agement Office of Mississippi Valley Division. She is handling Corps-wide deployment of P2. "The business process team analyzed processes, best practices, and requirements for project delivery identified by all levels of the Corps, and developed streamlined standard processes and procedures. What's in P2 are the things that work."

"With standard business processes being put in place, an information technology application is being developed that will provide structure and support to the Corps' corporate, regional, district-level, and project management business processes," said Bill Stein, a member of the Business Process/P2 Team in South Atlantic Division.

"P2 will replace PROMIS, standardize the Corps on the Primavera P3e network analysis software, provide standardized and ad-hoc reporting capability, and provide it all in a knowledge management web environment (portal). Performance measurement and reporting will become a by-product of day-to-day project delivery team business activities."

Advantages

P2 offers several other advantages over previous systems.

"The single point of data entry is going to be really great," said Moody. "It's one of the big savings not only in effort, but in consistency of data. You put that data in one time, and it carries through the entire system. There's no chance that your take on this project and my take on this project will be different if the same data is being shared. That will increase our efficiency."

"Another important thing is that we have settled on Primavera Project Planner

for the Enterprise (P3e) as our network analysis system," said Nash. "With the business processes ensuring consistent usage of the tool, and the same tool everywhere, you're not going to have the learning curve you ran into in the past. Once you learn how to use P2 in Savannah District, you can go to Portland or Europe or Far East District and it works the same there as it did in Savannah."

Deployment

The P2 roll-out, its first full-scale demonstration, took place on Oct. 16 in Headquarters. The remaining major steps are the Integration and Acceptance Tests scheduled in the second quarter of fiscal year 2003 (FY03).

In the March/April timeframe of FY03, P2 will be deployed for Initial Operating Capability (IOC) in one district of Pacific Ocean Division, Southwestern Division headquarters, and Fort Worth and Galveston districts.

"If all goes well with the IOC, Corps-wide deployment of P2 will follow immediately," said Nash. "It will be a staged deployment, and should take about a year after the IOC is finished."

Learning Organization

At the end of deployment process, the Corps will have taken a long stride toward becoming a Learning Organization.

"P2 is not *just* a business process system, although that's its primary function, and it will do that extremely well," said Flowers. "P2 is also a *knowledge management* system. Its reporting functions will allow us to capture the lessons we learn and preserve them."

'What's in P2 for me?'

By Becki Dobyns
Headquarters

"I'm very apprehensive about P2. In fact, I'm very worried about it."

"We're in the trenches trying to make projects work. All of a sudden this grandiose software is going to appear, and we're going to become slaves to it."

PMBP focus group attendee

So, people wonder, can P2 actually help them do their jobs better? Or is it going to be more trouble than it's worth? Well, here are some advantages of P2 as briefed to Congressional staffers earlier this year:

- Tracks project schedule, budget, and resources.
- Shares data across districts and regions.
- Increased information, in real time.
- Identifies the right people for the job.
- Electronic project management plan for improved project development, management, communication, and quality.
- Enables project delivery team to be more proactive.
- Timely execution data.
- Shared data whether teams are local or virtual.
- Teams can assess a project's "what if" scenarios.
- Evaluates planned and programmed vs. actual performance.
- Supports corporate learning; everyone shares in capturing lessons-learned.
- Enables life-cycle management of assets requiring maintenance.
- Shared work plans for personal and real property.
- Performs Earned Value Analysis.
- Eliminates redundant data entry.
- Enables project managers to use one automated tool (no more multiple systems).
- Eliminates project manager upward reporting because upper management runs its own reports.
- State-of-the-art system.
- Commercial off-the-shelf software, adapted for Corps use.
- Workload analysis across USACE.

Chief's Holiday Message

Corps makes a difference in the nation

Throughout this year, I've been pleased to see Corps people reaching out to help each other. "The Corps takes care of its own" has been a U.S. Army Corps of Engineers principle for as long as anyone can remember, and we saw it in action again this year.

When Hurricane Lili seemed to take dead-aim at New Orleans District, Corps planning and preparation kicked in to transfer their missions to Memphis District. Fortunately, the storm missed New Orleans, and quickly fell from a Category 4 to a Category 2 hurricane. But the situation proved that if we have a "victim district" during a disaster, other districts could step in and take the load.

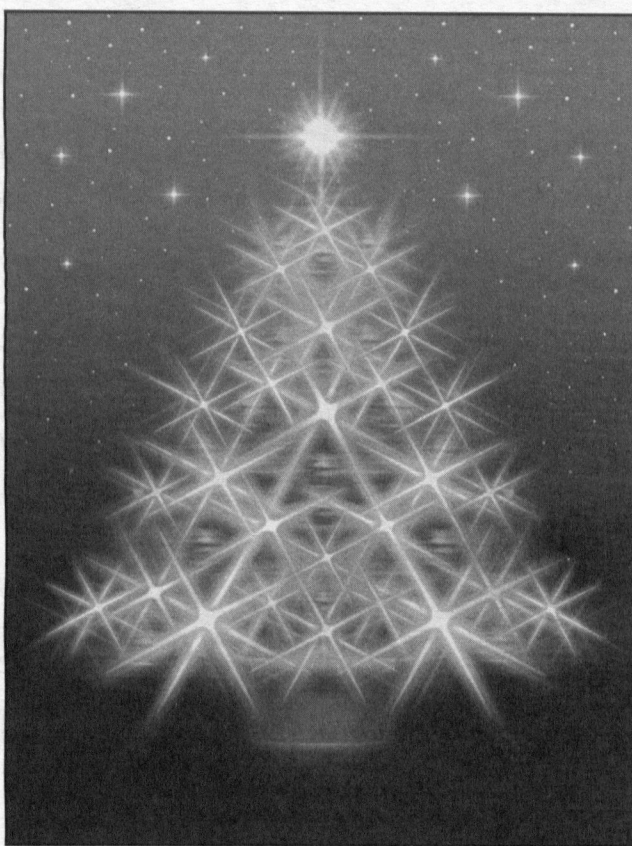
Another example of the Corps taking care of its own is in Southwestern Division. SWD has created a Critical Incident Stress Management program that provides peer counselors to help their people deal with on-the-job trauma.

That attitude of helping others extends outside the Corps as well. In the past year, we played a major role in cleaning up the aftermath of the Sept. 11 terrorist attacks. In New York City, the Federal Emergency Management Agency tapped the Corps immediately for our expertise in debris removal. With our help, the partnership of agencies removed the debris from Ground Zero months ahead of schedule and \$55 million under budget.

The Corps also assisted in the efforts to manage the Staten Island Landfill, a search and disposal location for tons of debris. Through its prime contractor, the Corps mechanized the operation and provided other assistance to facilitate the search, which identified and accounted for 500 victims of the terrorist attack.

Those actions helped speed the healing for our nation after Sept. 11. In addition, Baltimore District is managing the competition to select a design for a memorial to honor those who died when the airliner struck the Pentagon.

The Corps is also taking steps to make sure such tragedies never happen again. We are committed to homeland security, and to preparing for and preventing future attacks. For example, the Corps is a valued member of The Infra-



structure Security Partnership, a group of public and private organizations that work together on issues related to the security of the nation's built infrastructure. We recently took part in the first Annual Congress on Infrastructure Security in the Built Environment.

And elsewhere...

Thanks to Europe District, the Republic of Georgia has better security as their Border Patrol flies helicopters from renovated hangars.

Thanks to L.A. District, Los Angeles now has greater flood protection.

Thanks to Kansas City District, Jasper County has no lead contamination in their residential yards.

Thanks to Corps people, U.S. soldiers in Afghanistan have electrical power, real estate negotiation service, and construction service. And humanitarian projects that we assist are helping the Afghani people recover from the traumas of war and a repressive regime.

As for the future, people throughout the Corps are learning the Project Management Business Process, the system that is revolutionizing how the Corps does business. We are becoming a Learning Organization where we will share lessons learned across the entire Corps.

In the environment, our seven Environmental Operating Principles are sharpening and guiding our commitment to protect and restore the natural world.

All these and much more demonstrates the combination of personal caring and professional expertise that our people bring to their work. I'm very proud of what you have accomplished, and of the difference you have made in the nation, and in the world.

The coming year will bring more challenges. But I have no doubt that if we keep taking care of each other, keep changing as an organization, and maintain our unique blend of personal compassion and technical expertise, we will face those challenges as well as we always have in the past.

To prepare for those challenges, take time off this holiday season, relax, and enjoy being with your family and friends. Nothing is more precious than time spent with loved ones.

My family joins me in wishing you a safe and joyous holiday season, and a happy, prosperous New Year.

Essays!

ROBERT B. FLOWERS
Lieutenant General, USA
Commanding

Insights

Peace is the greatest gift this season

By Col. Lowell Moore
Chaplain, U. S. Army Corps of Engineers

It looks like Washington, D.C., and the surrounding area have received its Christmas present early this year. I am referring to the peace that has returned to the National Capitol Region after the arrest of the snipers who had many Washington, D.C., residents hiding in fear.

My wife and I live on Fort Belvoir, Va., which is in the area that experienced the terror that comes with having snipers on the loose. We went shopping a week before the snipers' arrest and again the weekend after the arrest. We noticed how few shoppers there were before the arrests, and how full the shopping centers were afterwards.

We have many friends who carefully selected the time and location that they would buy gas, trying to minimize their likelihood of becoming the next victim. We have friends who decided to catch the Metro (Washington's subway system) at a different station so they wouldn't have to wait in the open. And we have many friends who did as little grocery shopping as possible.

Nearly all Americans watched their TVs and saw how unnerving it was for residents when they did not know when or where the next tragedy would occur. We all saw

how fear caused the cancellation of proms, football games, and countless other activities.

Now that peace is returning to the National Capitol Region, I can almost hear a sigh of relief as the millions who live here sense the renewed peace and start getting back to business as usual. I think we will all appreciate the sense of peace this Christmas and consider it to be a very nice Christmas present. But, isn't peace on earth the real reason for Christmas anyway? (Luke 2:14)

I'm sure that we have all heard about the man who kept hitting himself in the head with a hammer and, when asked why he did so he replied, "Because it feels so good when I stop."

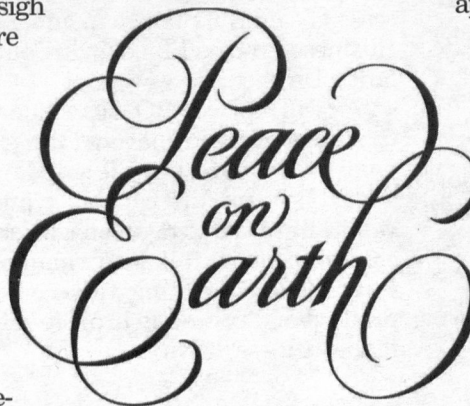
I really don't believe that there are any Corps employees who would be foolish enough to deliberately inflict pain and discomfort on themselves just so they could enjoy the relief when it is gone. However, I believe that there are many of us in the Corps who are guilty of failing to appreciate our blessings until they are threatened. There are

many things we take for granted and don't fully appreciate until they are taken away. Things like air, friends, family, health, and freedom become more valued and appreciated when we have experienced life without them. And as I have found out in October, peace is one of them.

This holiday season, I hope we will all appreciate the peace that we are now experiencing. Whether we live in the Washington, D.C., area and are breathing easily again now that the snipers have been arrested, or whether we live outside the Washington, D.C., area and were fortunate that our peace was never in jeopardy, I hope we pause long enough to be aware of the peace that we enjoy and not take it for granted.

There is only one word that can express the way I feel about Christmas this year. It is **SHALOM**.

(The views this article are those of the author and do not reflect the official policy or position of the U.S. Army Corps of Engineers, the Department of the Army, the Department of Defense, or the U.S. government.)



Everglades

Corps helps take eco-lessons into Florida classrooms

Thanks to a joint education venture, students can now journey through the Everglades ecosystem without leaving the classroom. "Everglades - An American Treasure," is bringing to life the interconnected Kissimmee-Okeechobee-Everglades watershed and the unprecedented state/federal efforts now underway to restore and revitalize this extraordinary ecosystem.

Resources

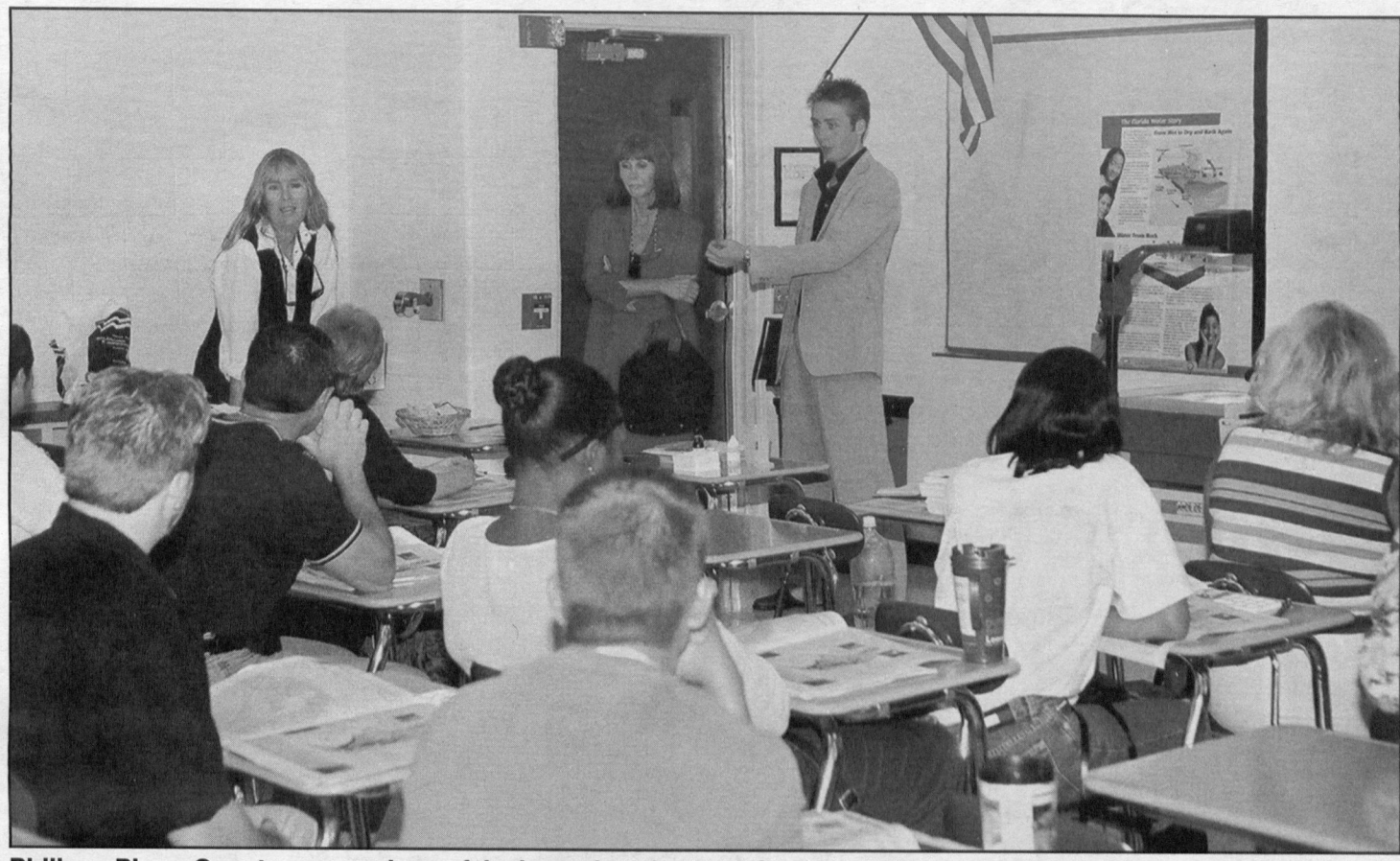
This new student resource guide (a 16-page tabloid newspaper) along with corresponding middle and high school level teachers' guides and lab kits, has been designed to increase awareness and understanding of the Everglades.

Through the Newspapers In Education (NIE) program, these resources have already been printed and distributed at no cost to public middle schools and high schools throughout the 16-county central and south Florida area directly impacted by Everglades restoration.

Partnership

The Corps developed the new Everglades program materials in partnership with the School District of Palm Beach County and the South Florida Water Management District (SFWMD), the Corps' local sponsor.

Most importantly for Florida students and educators, the program materials are FCAT ready, meaning that the content



Philippe Pierre Cousteau, grandson of the legendary Jacques Cousteau, addresses a group of teachers participating in a workshop about the new educational Everglades materials. (Photo courtesy of Jacksonville District)

and delivery format have been developed to correspond with the requirements of Florida's Comprehensive Assessment Test.

The Everglades lesson will be taught

as a required Benchmark Focus Lesson in every public middle school in Palm Beach County, and other counties are considering similar requirements.

Posters, video

Many students began the new school year in classrooms decorated with colorful, two-sided companion posters produced by the Corps. The poster follows a drop of water through the Kissimmee-Okeechobee-Everglades watershed, illustrates the hydrologic cycle, and teaches the importance of aquifers — all lessons taken directly from the student resource guide.

Additionally, the SFWMD has distributed 1,000 copies of a companion video filmed this summer by the Philippe Cousteau Foundation, led by the grandson of Jacques Cousteau.

Corps outreach staff members have participated in exhibits and introductory workshops at science teachers' events, and have begun to work with the Florida Department of Education to encourage expanded use of these materials throughout the state.

Along with its partners, the Corps plans to develop a similar program for elementary students, and is exploring the use of teacher-training workshops to familiarize educators with the free resources and encourage their expanded use.

Newspaper help

Due to the complexity and long-term nature of the restoration plan, Everglades education in the classroom is an important priority of the Corps' overall public

outreach plan.

The Corps has received a great deal of assistance from the Newspapers In Education (NIE) program partners that have teamed to offer these exciting new educational tools for our next generation of decision-makers and natural resource stewards.

At no cost to educators, the (NIE) program network has supported this effort by printing and delivering the Everglades lesson materials to schools in the areas they serve, with distribution partially funded by the Corps.

275,000 copies

More copies have been distributed to other youth and adult education outlets through the SFWMD's regional Service Centers. Thus far, this collaborative effort has distributed almost 275,000 copies of the Everglades materials.

Additional copies are anticipated to be printed annually, and may be requested by any public or private school or organization, regardless of geographic location. The Corps is striving to spread the message that we are working to restore the Everglades.

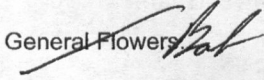
For more information, or to receive a copy of "Everglades - An American Treasure," please contact Malissa Booth, the Community Outreach Specialist in the Corps' South Florida Restoration Program Office, via e-mail, Malissa.S.Booth@saj02.usace.army.mil, or call (561) 683-1577 ext. 24.

(Malissa Booth of Jacksonville District and Sandy Jurban of the South Florida Water Management District both contributed to this article.)



ASSISTANT SECRETARY OF THE ARMY
WASHINGTON

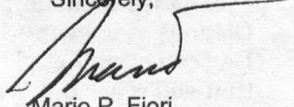
November 4, 2002

Dear General Flowers 

I was pleased to see a performance improvement from 84% to 95% in contract awards over the past year, a result of leadership attention at the headquarters and hard work at the Districts and Division. It is particularly impressive considering the unplanned Fiscal Year 2002 MCA plus-up of \$510 million we received last summer. You and your staff are to be commended for rising to the occasion, demonstrating to all your ability to execute.

I am also aware of efforts underway between the Corps and ACSIM to maintain or improve this level of performance while awarding more contracts earlier in the fiscal year. Thanks for making this possible and keep up the great work for Fiscal Year 2003.

Sincerely,



Mario P. Fiori
Assistant Secretary of the Army
(Installations and Environment)

Lieutenant General Robert B. Flowers
Chief of Engineers/Commanding General
United States Army Corps of Engineers
441 G Street NW
Washington DC 20310-2400



On Water Monitoring Day, people throughout the nation collected water samples at Corps lakes and streams. Many school children took part in both the collection and testing. (Left photo from Buffalo District, right photo from Walla Walla District)

Water quality tested throughout Corps

By Candice Walters
Headquarters

From San Francisco to Buffalo and every place in between, students and adults converged on U.S. Army Corps of Engineers lakes, rivers, and reservoirs to test the water. Not test the water as in "put your toes in." On Oct. 18 and 19, these testers relied on beakers, thermometers, and testing strips to see if water quality throughout the U.S. has improved 30 years after the adoption of the Clean Water Act.

It was all part of the National Water Monitoring Day, a grassroots effort across the country coordinated by America's Clean Water Foundation and other environmental groups and governmental agencies, including the Corps.

Corps-wide events

Throughout the Corps, districts, divisions, labs, and centers responded to a call from Chief of Engineers Lt. Gen. Robert Flowers to use National Water Monitoring Day as an "opportunity to show how the Corps' commitment to water resources has made a difference to our nation."

In Vicksburg, Miss., students from four local high schools joined the Research and Development Center (ERDC) in testing water from creeks, streams, lakes, and the Yazoo River at the Vicksburg waterfront. The students saw firsthand that what they learn in the classrooms have real-life applications.

Young and old participated in two events that San Francisco District sponsored at Lake Sonoma. School children learned about clean water in the Piner-Olivet Union School District's Health, Safety & Nutrition Fair, while adults tested pond water at Lake Sonoma. On Oct. 19, at San Pedro Creek in Pacifica, Calif., Explorer Post 333 collected data from four different monitoring points. The district and Bechtel Corporation sponsor the Explorers as part of the "Learning for Life" career education program.

Juniors and seniors from a Buffalo, N.Y., area high school went to Onondaga Creek, a major tributary of Onondaga Lake, to learn how the water quality in the tributary affects the water quality in the lake and the entire watershed.

Working with Buffalo District employees, the students learned how to take and read water samples. Several students then attended the Onondaga Lake Partnership Annual Progress Meeting on Nov. 13 to speak about what they learned, reporting that they desired similar hands-on learning opportunities. As a result, the Partnership, which includes Buffalo District, is pursuing a continuing relationship with the school group.



Stella Ausmus of Brookeland High School holds a water sampling container at Sam Rayburn Lake while Leslie Greene, also of Brookeland, checks a test strip. Corps environmental specialist Ed Shirley is at the far right. Shirley's wife, Sandra, a science teacher, is at the far left. (Photo courtesy of Fort Worth District)

In St. Louis, students from two states, Illinois and Missouri, participated in several days of activities. Students learned to sample water, were introduced to the Corps' Environmental Operating Principles, and participated in a "Drink at your own risk" demonstration of different water pollutants.

Toadzilla and Spot

"The Corps' participation was significant because it made the public aware of its involvement in sustaining our economy, our health, and our way of life," said Harry Simpson, Jr., an electrical engineer with the Great Lakes and Ohio River Division. LRD participated in National Water Monitoring Day activities at the Serpentine Wall along the Cincinnati Waterfront on Oct. 18.

LRD provided some of the 21 exhibits displayed along the Wall, and gave presentations on how Corps locks and dams control flooding and navigation along the Ohio River.

One highlight involved two live participants, a female

toad named "Toadzilla" and a male spotted salamander called "Spot." Park ranger Melissa Grosvenor of Caesar Creek Lake explained that amphibians like Toadzilla and Spot are environmental barometers for aquatic ecosystems. When toads and salamanders are present, the water quality is probably good.

More than 50 people participated in "Eyes on Indian Creek" activities sponsored by Albertson College of Idaho, the Idaho Department of Environmental Quality, the National Park Service Rivers and Trails program, the City of Caldwell, and Walla Walla District's Indian Creek Ecosystem Restoration Feasibility team. Participants looked at bugs and fish found in the creek, and learned about water sampling.

Fort Worth District sponsored water sampling activities at Benbrook and Waco Lakes and Sam Rayburn Reservoir. In all three cases, students learned from their testing that the overall water quality was generally good. The district believes that monitoring water quality is an ongoing activity, with intensive water quality sampling programs at nine of its Texas lakes.

In Huntington District, volunteers headed to 50 different sites in West Virginia, Kentucky, and Ohio to give the waterways a checkup. Students took samples, tested them, learned that the daily actions of individuals not only affects water quality, but can affect hundreds of people downstream.

Other events

While many activities were geared to students, Boy Scouts got into the action in Arkansas at Lake Dardanelle a few weeks earlier. On Sept. 28, the Scouts, working with Little Rock District and the Arkansas State Stream Team, tested the waters.

Maj. Gen. Hans Van Winkle, USACE Deputy Commanding General, spoke to more than 300 students at the National Youth Watershed Summit in Washington, D.C., on Oct. 9. He discussed the importance of finding solutions to keep the nation's water resources safe from contamination and misuse, and the need to make a commitment to clean water and environmental protection.

Because 2003 has been proclaimed another Year of Clean Water, events like National Water Monitoring Day can be expected to continue, plus other activities that will reach out to students and the public alike as they learn how valuable clean water is.

"This project (National Water Monitoring Day) shows not only the importance of water quality, but helps these students realize that one creek really can make a difference in the environment, even in the grand scheme of things," said Susan Price, an environmental science teacher at All Saints Episcopal School in Vicksburg.

Young offenders clear brush at dam

Article by Mike Tharp
Photos by Dr. Fred-Otto Egeler
Los Angeles District

Ulysses, a wiry 18-year-old from Bell Gardens, Calif., holds a Pulaski fire tool as Fire Suppression Camp 17 hacks at weeds taller than they are in Los Angeles District's Santa Fe Dam Basin. "I enjoy cutting with it, sir," he says, hefting the Pulaski, an ax-and-hoe hybrid.

Neither Ulysses (whose surname is confidential because he was a minor when he began his one-year sentence) nor his 11 fellow weed-whackers realize that, with every Pulaski stroke, they are writing a footnote in history. For the first time, the district is using juvenile offenders from Los Angeles County's Residential Treatment Services Bureau for a weed eradication project.

"They did a great job yesterday," said Carvel Bass, a district ecologist, as he strode down a dirt trail toward today's work detail. "Arundo, tamarisk, and castor beans were all going down."

Complex tale. How a dozen teenagers in trouble with the law wound up working in the sunlight and sand of the Santa Fe Dam Basin, slashing invasive plants with leaves as large as giant lizard pads, is a complex tale. It involves bureaucracies, ecology, the criminal justice system, a white-bellied warbler, and an outraged birder.

The tale also shows how the district performs its role as arbiter by balancing competing interests and conjuring creative tradeoffs among its many stakeholders. "The easy days are over," said Bass. "A lot of the informal ways we did things in the past we can no longer do."

The Santa Fe Dam is a giant earthenware horseshoe four miles from the mouth of San Gabriel Canyon. The flood control dam was finished in 1949. As part of Los Angeles County Drainage Area (LACDA), it protects hundreds of thousands of people and structures between it and Whittier Narrows Reservoir. It is more than 500 feet tall, and its embankment curves nearly four miles tip-to-tip.

In 2000 L.A. District told Los Angeles County that it needed to remove some sediment building up behind the dam. Such a buildup weakens the dam's flood control capability. The county leases the land behind Santa Fe Dam from the Corps, and so its Public Works Department (DPW) hired a contractor to bulldoze and remove the sandy soil from the channel.

Problems. One problem — besides sediment, mule-fat shrubs and willow trees were also removed.

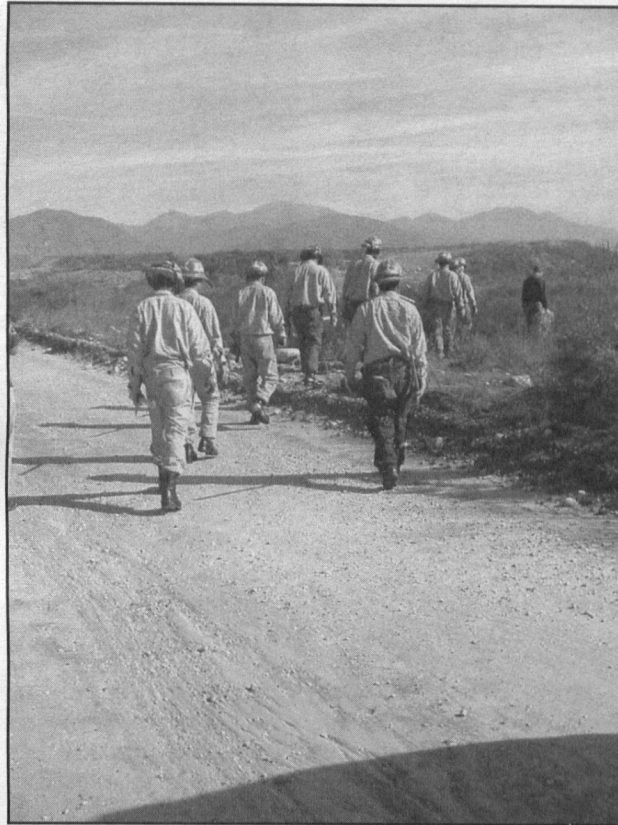
Another problem — those shrubs and trees provided nesting places and warbling perches for the least bell's vireo, an endangered species of migratory songbird that has staked claims to seasonal homes behind several Corps dams in southern California.

And a *third* problem — Mike San Miguel, a retired engineer who became an expert on the vireo, discovered that part of his favorite bird's habitat was uprooted and gone.

San Miguel, who's been birding at the basin since the 1970s, remembers that he was shocked when he saw the bulldozers and earthmovers cutting a wide swath through the willow forest. In his view, despite a preliminary assessment that there wouldn't be any environmental impact, "the Corps hadn't pursued the proper environmental review and was probably in violation of the Endangered Species Act."

San Miguel complained to the district and the U.S. Fish and Wildlife Service (USF&WS). Although the Corps and Los Angeles County knew that 80 to 100 acres of the basin was habitat for several pairs of the birds, they didn't realize that the vireo could also be found in vegetation along the newly excavated channel.

"We were ignorant because, although a vireo survey had been done by a county-paid consultant (who *did* see some vireos), the birds in the project area weren't noticed," said Bass. "Mike reported the bird's presence to the Fish and Wildlife Service, but the Corps didn't know until after the fact. It was unfortunate that the county



Juvenile offenders march off into the California outback in the Santa Fe Dam Basin to cut and remove invasive nuisance plants.

DPW's project involved a corner of the vireo habitat. And Mike San Miguel blew the whistle."

USF&WS, which administers and enforces endangered species regulations, heard the whistle and ordered L.A. District and Los Angeles County to come up with mitigation to compensate for the habitat's loss.

They came up with the plan to eradicate three types of plant pests that overrun native species and suck up scarce nourishment from the water table. Once those noxious weeds are removed, an herbicide will be sprayed next spring. Native birds and plants will thus have a better chance to survive and thrive.

Nasty plants. The targets — arundo, which looks like mutant bamboo; Old Testament-era tamarisk (salt cedar), which reproduces so fast that it crowds out neighboring plants; and castor bean, whose poisonous seeds nestle under laptop-sized leaves on eight-foot-high trunks.

This rogues' gallery of vegetation might seem daunting to some, but not the boys from Fire Suppression Camp 17. The county's DPW, searching for a mitigation strategy, called on the fire department. In turn, fire officials called on the Probation Division which supervises fire camps, including Joseph Paige Camp (number #17) in the forested mountains of La Verne.

Camp Paige. Juvenile boys with criminal convictions (car theft, assault with or without weapons) go to Camp Paige. With unarmed probation officers and no fences, the camp provides room, board, and academic classes for its residents. The county program is one of the few existing efforts to rehabilitate youthful offenders, rather than simply warehouse them behind bars.

It also serves as a first-line fire department for several local cities, and Ulysses and his mates fought fires earlier this year at Azusa, Calif. "I learned a lot of things about firefighting, sir," Ulysses said. "The most important thing is safety first, then you gotta have water."

Luis Aranda, a Bolivian-born instructor for the Probation Department, accompanies the crew as they slash and burn. The fire department provided Karen Zakowicz, a crew supervisor, and Larinda Pontes, from the forestry division. The trio watches as their charges legally defoliate broad swaths of the dam basin.

"The kids are learning to work," said Aranda. "For many it's the first time they've held a tool in their hands. It's good training for them; sometimes they don't know how capable they are. A lot of times it's the only positive



thing in their lives. This could be the last chance for them."

Zakowicz, a no-nonsense forewoman, observes that they're making progress. "It's hard for them not to just blast through" any living growth in front of them. "They do good when they know what's going on."

Bass makes sure that happens. Zakowicz hustles the blue-jeaned brigade into a "fire-line" as the Operations Branch team member addresses them. "We're trying to keep the willow trees here," he said. "The birds that have always lived here need the habitat, and you're helping to preserve it. Thank you very much."

For San Miguel, the eradication project won't bring back the water, which won't bring back the desiccated willows, which won't bring back the vireos. "Arundo removal does nothing to replenish the willow forest," he said, adding that when he went looking for vireos in July, he found only one pair. "So their demise is perhaps sealed."

Results. Perhaps. But at the end of the controversial channel nearest the dam, mule-fat and willow trees have begun to grow. That emergent habitat could one day harbor vireos again.

Bass and other district team members are also brainstorming solutions to reintroduce enough water into the channels to replenish the water table. Bass will include San Miguel in the planning sessions because of his extensive environment expertise, and his independent advisory position as a private citizen.

Meanwhile, every other day for several weeks, the eradication drill continues. The camp crew will work at the basin, shadowed by Bass or Phyllis Trabold, another L.A. District ecologist, to make sure no vireo habitat is damaged during the cleanout. (The birds themselves have migrated to Baja California for the winter.) Scrub brush in the upper basin and willows in the lower are off limits for the eradication project.

Back to work. After hearing Bass, the young men sip from their backpack canteens. They're not allowed to lean on the Pulaskis, so they stand erect as they take a break, speaking quietly to one another. Then Zakowicz breaks the quiet. "OK!" she shouts. "We've got more castor beans to attack!"

Fire Suppression Camp 17 goes back to work. Somewhere down in Baja, a pair of white-bellied songbirds is singing.



This bald eagle was entangled by an illegal limb (fishing) line at Lake Wappapello. (Photo by park ranger Rebecca Hayes, Wappapello Lake)



After three weeks of recovery, the bald eagle was released back into the wild. (Photo by park ranger Rebecca Hayes, Wappapello Lake)

Rangers rescue trapped bald eagle

By Alan Dooley
St. Louis District

Park rangers James Gracey and Doug Nichols teamed up with Wayne County, Mo., conservation agents recently to save an imperiled bald eagle at Lake Wappapello in St. Louis District.

Limb line. The team sprang into action on July 26 when three fishermen reported the eagle, the protected symbol of our nation, hanging in a tree near the lake's spillway boat ramp. The eagle had become ensnared on the hook of a limb line, apparently as the bird dove to catch a fish near the shore. The bird was dangling some 10-12 feet above the water.

The fishermen, who fortunately came upon the eagle not long after it got hooked, called U.S. Army Corps of Engineers officials immediately. They in turn, notified local officials, who dispatched county conservation agents

Mic Plunkett and Russell Duckworth to the scene.

Rescue. Working together, the group got the eagle down from its perilous position and captured it so it could be treated.

During the rescue attempt, they first tried to pull the branch down with a rope, but the eagle grasped the rope in its claws and refused to let go. Next the men cut the fish line, and when the eagle fell to the ground it still refused to release the rope. So they were able to simply reel in the line, and then cover the bird with a large, heavy blanket.

Once they had the bird under control and calmed, they transported it to the Hillcrest Animal Hospital in Poplar Bluff, Mo. There, the bird received antibiotics. A veterinarian determined that there were no broken bones and that the hook had not penetrated any muscles before removing it from the eagle's wing.

The eagle spent the night at the Corps project office at Lake Wappapello, with plans to release it the next morn-

ing. But the eagle's wing was still drooping the next morning. On the advice of Carolyn Watkins, a licensed bird rehabilitation expert who has helped the Corps in the past with injured eagles, the bird was taken to her facility that morning for recovery.

Release. The eagle is thought to be part of a mating pair that remains in the Wappapello area year-round. If this is true, county and Corps personnel hoped the bond between the birds would continue following the three weeks in rehabilitation.

The eagle was released back into the wild on Aug. 13.

The incident was preventable. According to Plunkett, Limb lines, used by fishermen to catch fish when they are absent, are supposed to be removed when they are not in use. Missouri state law requires the lines to be labeled by fishermen, with their names and addresses. They must also be checked every 24 hours, at a minimum. None of these regulations were followed in this case.

HR Corner

OMB raises Corps management score

While the U.S. Army Corps of Engineers has been committed to attracting and nurturing its world-class work force for many years, it is only recently that the Office of Management and Budget (OMB) began "scoring" USACE and other federal agencies on how well they strategically manage human capital.

OMB recently raised USACE's score from a "red" to "yellow" after the Corps consolidated all of its ongoing efforts into a comprehensive Human Capital Strategic Plan, and educated OMB and Office of Personnel Management staff about our progress.

Positions filled

In fiscal year 2002 (FY02), 11,084 vacant civilian positions were filled throughout USACE. This represents a significant workload not only for the Civilian Personnel Advisory Centers and Civilian Personnel Operations Centers, but also for all the administrative staff and managers involved in the recruitment and selection process.

The selection process is only the first step of many that involves a significant investment of USACE resources. Employees often require orientation, coaching, and training by peers and supervisors. The process of integrating new employees into project management teams and making them productive assets for accomplishing Corps missions is the result of a methodical and comprehensive planning and execution process.

Hiring factors

To maintain USACE's current civilian strength, the number of employees that must be hired in the future

will increase. The average age of USACE's work force is 46. In some occupations such as construction representatives and realty specialists, this average age is higher. The number of employees projected to retire in the next few years will increase by 16 percent.

This, coupled with the number of employees who will voluntarily leave the organization for other career, means the number of employees hired from outside the Corps will need to increase from 3,600 to 5,500 per year in the next three years to maintain existing employment levels.

External factors, such as a poor economy and skills shortages in some labor markets, may affect our ability to meet future needs. In addition, competitive sourcing, homeland defense, and other factors may impact our target strength and accession requirements. Our human capital strategic plan highlights initiatives that are underway and to assist the Corps in attracting and retaining the work force it needs.

Web page

Currently project delivery teams are working on creating a USACE employment web page that will market the rewarding work being done throughout the world by the Corps, and help interested applicants navigate the cumbersome application process. Another project delivery team is improving our college recruitment program by assuring that all the regional and local efforts currently in place address USACE-wide needs. Providing training for USACE employees who serve as recruiters at conferences and job fairs is part of that effort.

USACE staff is working with Department of Army to standardize and simplify application procedures across

the country. Providing applicants one portal to submit resumes for any Army position, regardless of location, is one step in the right direction.

CIVFORS

The accurate forecasting of future requirements based on projected retirements, other voluntary losses, and past accession patterns is an important component of USACE's strategic human capital planning effort. Fortunately, Army's Workforce Analysis Support System and Civilian Forecasting System (CIVFORS) are reliable, state-of-the-art systems.

By using CIVFORS, our FY02 retirement projection was more than 99 percent accurate. By forecasting the types and numbers of employees who will retire in three-to-five years, we can prepare better for the future by hiring the right skills to replace the talent and minimize the loss of corporate knowledge.

Challenges

As a result of understanding the impact of a retiring baby-boomer generation, USACE has three times as many 20-24 year old employees as a percentage of its workforce than the federal government as a whole. This also accounts for a substantial increase in the number of employees hired as career interns and under the student career experience program in the last few years.

Like other federal agencies, USACE faces many challenges in attracting and retaining the employees it requires. However, through the aggressive action underway at all levels, we are confident we will avert the crisis others face, and get "green" on OMB's scorecard.

Around the Corps

Correction

Christine Bruske and Scott Maners both worked for Wilmington District when they produced the article and photos for "Exercise tests security at Wilmington District" in the November 2002 *Engineer Update* on-line.

Day use fees

The Corps will increase recreation day use fees on Jan. 1. Fees for issuing special event permits will also increase for the 2003 season.

The new day use fee schedule for Corps operated recreation facilities is:

- \$1 per person (up to \$4 per vehicle) for developed swimming beaches, and a fee of \$3 for boat launching at ramps with additional amenities.
- A maximum fee of \$4 per vehicle per day for all day use recreation facilities in a park.
- An annual pass for \$30 will permit the holder and accompanying passengers to use all day use facilities at Corps parks for the calendar year. A second annual pass may be purchased for \$15.
- Golden Age and Golden Access passports will be honored. Holders will receive a 50 percent discount on all recreation use fees.
- There is no fee for children 12 years old or younger.
- The basic fee to issue a special events permit will be \$50.

The Corps is also conducting a review to ensure that our recreation fees compare to those charged for similar facilities and services in the local area. This will avoid unfair competition with private industry, and may result in increased camping fees at some locations.

The Corps charges fees under the authority of the Land and Water Conservation Fund Act. For more information, see www.usace.army.mil/recreation/



Tim Blumentahl, Executive Director of the International Mountain Bicycling Association, and Brig. Gen. Carl Strock, Director of Military Programs, sign a memorandum of agreement. Shauntay Hinton, Miss USA, looks on. (Photo by Marti Hendrix, HECSA)

Mountain bike partnership

The Corps recently signed a memorandum of understanding with the International Mountain Bicycling Association (IMBA). IMBA has 32,000 members and more than 450 clubs. It teaches sustainable trail building, and has become a leader in trail design, construction, and maintenance. They encourage responsible riding, volunteer trail work, and cooperation among trail user groups and land managers.

The MOU signing occurred Sept. 28 during a National Public Lands Day (NPLD) event at Anacostia Park in Washington, D.C. Lt. Gen. Robert Flowers, Chief of Engineers, had signed the agreement, but was called away at the last moment, so Brig. Gen. Carl Strock, Director of Military Programs, stood in. Tim Blumentahl, Executive Director of IMBA, signed for IMBA.

Under the memorandum of understanding, IMBA trail experts will travel to Corps recreation sites to help design, build, and maintain shared-use trails. IMBA will also provide trail management and education advice to

Corps project managers.

Corps trails for 2003 include Lewis and Clark Trail, N.D.; Lake Mendocino, Calif.; Lookout Point Lake, Oregon; Raystown Lake, Penn.; Farmdale Reservoir, Ill.; Claiborne Lake, Ala.; Bonnet Carre Spillway, La.; and Canyon Lake, Texas.

"There's a great deal of effort and planning in managing the natural resources on public lands," said Flowers. "Effective partnerships with federal, state, and private natural resource and recreation organizations are essential for successful stewardship of this trust. This memorandum of understanding with IMBA lays the groundwork for a valuable partnership that will benefit both the visiting public and nature."

If you want to submit a request for a trail care crew, visit www.IMBA.com, and fill out the request form. For more information on this MOU, or IMBA activities, contact Debra Stokes (Corps) at (202) 761-7769, or Jenn Dice (IMBA) at 1-888-442-4622.

Mountain Home

As the ceremonial ribbon between two airfield service vehicles fell neatly aside, four F-15s roared past, marking the end to rebuilding the runway at Mountain Home Air Force Base, Idaho. Seattle District celebrated the completion of two major construction projects Sept. 19 at Mountain Home AFB – the runway reconstruction, and 60 new family housing units.

No project has more concern and interest on an Air Force Base than runway construction. At Mountain Home, the pressure to finish on time was especially high because the 366th Wing was deployed to Kuwait, and family members and service members alike wanted reassurance that their tour would not be extended.

Runway construction ended in 60 days, ample time to bring the pilots home when promised to waiting families. The district's part of the \$30 million work included \$16 million to refurbish the runway, taxiways, and parking apron.

"This project involved four different types of money, five contractors, more than 400 employees, 10 contracts, and an Air Expeditionary Force deployment," said Dennis Firman from the Air Combat Command Civil Engineer Directorate. "I judge a project's success by how many phone calls about problems I receive, and this was a success."

Following the runway ceremony, the wing celebrated completion of 60 prairie style homes for junior non-commissioned officers. The \$10 million project provides modern homes like those one would see in suburban neighborhood developments.

"These aren't your standard, '50s style military housing," said Brig. Gen. Irving Halter, 366th Wing Commander. "These are like homes you would buy on the economy."

The design-build project used stone to enhance the exteriors. Front stoops are cast, stained concrete that looks like slate slab. Neutral colored carpets, durable wood-look dining area floors, and craftsman style light fixtures and windows enhance the appearance of these homes. Large closets and versatile storage areas add to these houses' appeal for military families.

Rather than the old-style row houses, these homes come in a number of designs (one- and two-story, town home and single family, taupe or gray) all with fenced private back yards and a single car garage.

Sandtable

The children of the Brightside Home of the Sisters of Providence now have a pentagon-shaped sand table built by the park rangers of New England District. The sand table was created by the district's Interpretive Service and Outreach Program Committee.

The committee donated the materials and built the sand table as part of an exhibit focusing on the Corps' construction history. The exhibit was on display at the Big E! in Springfield, Mass., Sept. 12-29. (The Big E! is the annual Eastern States Exhibition.)

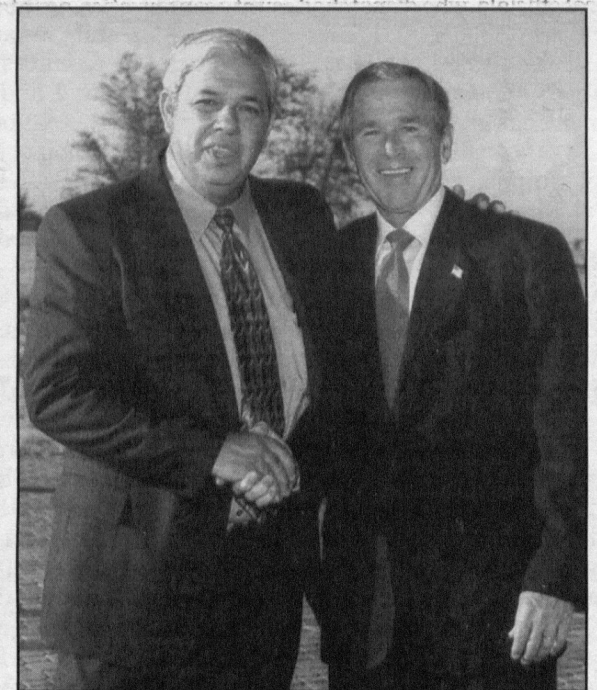


Park ranger Delia Vogel and children play with the sand table at the Big E! exhibition. (Photo by C.J. Allen)

For nearly 15 years, the interpretive services committee has created exhibits for the Big E! According to Will Rogers of Technical Services, the sand table idea came up during last year's Big E!

"There were some empty planter boxes with sand in them, and the kids were drawn to the sand like a magnet," he said. "The boxes were used as a divider between the display and the walkway. The kids couldn't keep their hands out of them. We thought it would be great to have a real sand table for kids to play in."

The interpretive services committee discussed donating the sand table to an organization devoted to children in need with Marci Alvis-Slinski, Director of CraftAdventure and the New England Center for the Big E! She contacted the non-profit Brightside Children's Home and learned that they would happily accept the sand table. The home was founded in 1881 to meet the adoption needs of children and families.



Meet the boss

The other guy in this photo is Larry Dean, a maintenance worker at Waco Lake. Dean is a reserve deputy for the McLennan County Sheriff's Department and works on security patrol at the president's ranch near Waco, Texas, when Bush is there.

Dean got to meet the president at the end of Bush's month-long vacation. They met at the helipad as Bush was leaving on Marine One.

"President Bush is a real nice guy and brings us barbecue when we're on duty," Dean said. "I see him often, but this is the first time I've really gotten to meet him."

(Photo courtesy of Fort Worth District)

Fort Future

War-games help design Army facilities of tomorrow

By Bernard Tate
Headquarters

How do you scope out what kind of installations soldiers will need 10, 20, even 30 years in the future? What will facilities and support infrastructure will the Army units being developed under Army Transformation need to be trained and ready when they deploy to fight a war?

Simple...*fight a war*. Or, to be precise, organize a war-game.

"In the Installation Transformation War-game that we sponsored, we were trying to get not only engineers to think about this problem, but the rest of the Army, the other services, and the private sector," said Steve Reynolds, Chief of Planning Branch in the Installation Support Division. "We wanted them to discuss, 'What are the implications of Army Transformation for installations, even if we don't have all the transformation details yet?'"

War-game. The Installation Transformation War-game was sponsored by the Office of the Assistant Chief of Staff for Installation Management (OACSIM), and organized by the U.S. Army Corps of Engineers. The players included senior leaders from all services, the Office of the Secretary of Defense, other federal agencies, academia, professional societies, and industry.

Toffler Associates, an industry consultant in organizational change and adjustment, designed and facilitated the game. It was held at the Johns Hopkins University Applied Physics Laboratory in Laurel, Md.

The war-game was played in seminar fashion. It was set in 2015, when the Army will still be in the midst of Transformation, and played out against a scenario of mobilization and deployment in a contingency operation.

Extremes. "We chose two extremes to play out and debate during the game," said Reynolds. "The names for these two different installation concepts were chosen to give a gut-feel for how such a post would operate."

Fort Autonomy was a complex of bases, each self-contained and secured from their surrounding communities. All operations and infrastructure were contained inside each base. "The old frontier Fort Apache comes to mind," said Reynolds, "where you've got the fort and everything inside, and a hostile environment outside."

"The other extreme was called **Fort Synergy**," Reynolds continued. Fort Synergy was a "web" of bases connected by advanced telecommunications. The installations focused on operations; all well-being functions were integrated with the community.

"I expected a strong tendency to go with the Fort Autonomy concept of a self-contained, controlled environment because of the strong concerns for force protection," said Reynolds. "But the group came to almost the *opposite* conclusion. We've gone too far down the road toward inter-

dependency with the private sector and the surrounding community. Even if we wanted to go back to Fort Autonomy, it's too late now."

Fort Synergy. "And that's not a bad thing; that's a good thing," Reynolds added. "We don't want to retreat from using the private sector and local community resources, which frees more military resources to support and defend the homeland, and makes it clear to the citizens of this nation that we are all in this business of homeland defense together."

"So the vision of the installation of the future that emerged from the war-game is more decentralized, more networked with telecommunications, and more integrated into the surrounding community," Reynolds said. "We don't need everything centralized in one installation. It can be scattered throughout the world and networked virtually and physically to support the requirements of the war-fighter."

"On the battlefield, the Army has learned that if you consolidate forces they become a lucrative target, so it's better to disperse," Reynolds explained. "Perhaps the same logic applies to installations. We can better assure that no critical assets are destroyed if we disperse, decentralize, and merge into the surrounding community."

Army Transformation. The Installation Transformation War-game was just one part of how the Corps is supporting Army Transformation initiatives. The Army Transformation Campaign Plan is a program to change the Army to meet the threats that our nation might face by 2032.

The Army as it exists now is called the **Legacy Force**. The current units still represent the equipment, tactics, and lessons learned during the Cold War.

The Army plans to field six **Stryker Brigade Combat Teams** (SBCTs) as the Interim Force. These brigades are the bridge to the future. They will be equipped with innovative interim equipment, and will be lighter, more rapidly deployable, but still lethal enough to deal with current

military threats.

The experiences of the SBCTs will help the Army to develop the equipment, tactics, and organization of the **Objective Force**. These are the units that will completely replace the Legacy Force by 2032. While their configuration is unknown at the present, they will be much faster to deploy, require less logistics support, be more flexible to meet a wide variety of threats, and rely on high technology for battlefield advantage.

"We're supporting the OACSIM in planning the transformation of installations, in parallel with transforming the rest of the Army," said Reynolds. "All that stuff you read about (new equipment, new force structure, new deployment logistics), the installations must be ready to support those. Otherwise the new modernized transformed Army will be in antiquated, obsolete, inappropriate facilities."

Different. "That's different from past Army transformation and modernization," Reynolds added. "Typically it has been at the end when they turned to the engineers and said, 'OK, now we need new or different facilities to accommodate the changes in the force.'"

A number of specific conclusions and recommendations came from the war-game. The major recommendations highlighted the need to simultaneously apply deliberate effort to develop long-term solutions and to address near-term needs.

To help address the long-term solutions, Dr. Ed Link, former head of Research and Development, coined the term "Fort Future" to describe a program to develop simulation tools to support the planning and management of installations. The Fort Future R&D program to support OACSIM is carried out by the U.S. Army Research and Development Center.

The "Installation Battle Lab" (a term also coined by Link) is the key to quickly applying the evolving tools and expertise developing under the Fort Future R&D program.

This concept also resulted from the In-

stallation War-game. Like the Training and Doctrine Command (TRADOC) Battle Labs, the Installation Battle Lab provides a rapid response to urgent needs, conducting experiments, and running simulations to generate new ideas.

But unlike the TRADOC Battle Labs it is not a "bricks-and-mortar" organization with a fixed staff. Instead, it is a virtual organization that will reach out and pull in the key experts to work on specific Installation Transformation issues as the need arises.

The Installation Battle Lab will create a "system of systems" that unites existing and coming computer models to help all players analyze installation alternatives, find problems, and explore better solutions *in the computer* while facility designs are being developed and there is time to improve the plans.

Tools. As prototype Fort Future tools are developed, they are pilot tested by the Installation Battle Lab to address immediate Installation Transformation analysis needs, and to provide feedback to refine further Fort Future development.

Some of these tools include:

Force Projection Module — This module is being developed in coordination with the Transportation Command, Military Transportation Management Command — Transportation Engineering Agency, and the Force Projection Battle Lab Support Element to help assess installation and facility changes that can streamline the ability to mobilize and deploy troops to meet Army Transformation force projection goals.

Force Protection Module — This module is an analysis tool to help address Force Protection questions like, "Is my infrastructure vulnerable?" "Where is it best to locate my new facilities?" What is the impact of a blast on human life and structures?"

Sustainability Module — This module is an assessment tool to help rate a facility design in how well it meets Army sustainability criteria by addressing questions like, "Have sustainable design principles been applied to site selection, design, pollution, environmental, and energy costs?" "Have they been applied during the construction, life cycle operation, and decommissioning of the facility?" "Have recycled and environmentally preferable products and services been used to minimize waste?"

Building Design Module — This module provides a design visualization tool to investigate 3D layout with associated criteria to help facility owners and users think about and answer questions like, "How do you want your new facility to function?" "Does the new facility meet my requirements and criteria?"

Encroachment Module — This module is a modeling tool that uses available demographic data to help anticipate potential encroachment issues and provide information to assist in planning mitigation measures in partnership with the surrounding communities.

